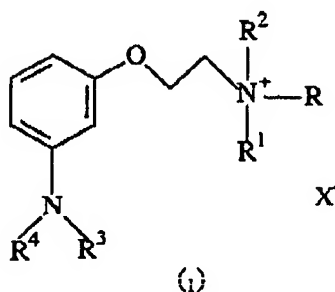


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hydroxyalkyl, C<sub>1</sub> to C<sub>6</sub> alkoxy, C<sub>1</sub> to C<sub>6</sub> aminoalkyl or R<sup>3</sup> and R<sup>4</sup> together form a C<sub>4</sub> C<sub>2</sub> to C<sub>5</sub> alkylene group; and R<sup>5</sup> is selected from C<sub>1</sub> to C<sub>22</sub> alkyl and C<sub>1</sub> to C<sub>22</sub> mono or dihydroxyalkyl. Preferably X is Cl, Br, I and R<sup>5</sup>SO<sub>4</sub> where R<sup>5</sup> is C<sub>1</sub> to C<sub>4</sub> alkyl, more preferably methyl; and preferably R, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are each individually C<sub>1</sub> to C<sub>3</sub> alkyl, and more preferably methyl.

### THE CLAIMS

1. (amended) A compound of formula (1):

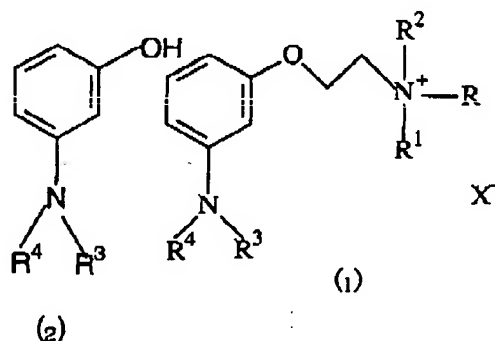


wherein X is selected from the group consisting of halogen and R<sup>5</sup>SO<sub>4</sub>; R, R<sup>1</sup>, and R<sup>2</sup> are each individually selected from the group consisting of C<sub>1</sub> to C<sub>22</sub> alkyl, C<sub>1</sub> to C<sub>22</sub> mono or dihydroxyalkyl, or two of R, R<sup>1</sup> and R<sup>2</sup> together with the nitrogen atom to which they are attached form a C<sub>3</sub> to C<sub>6</sub> saturated or unsaturated ring optionally containing in the ring one or more additional hetero atoms selected from O, S and N atoms; R<sup>3</sup> and R<sup>4</sup> are each individually selected from the group consisting of C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> hydroxyalkyl, C<sub>1</sub> to C<sub>6</sub> alkoxy, C<sub>1</sub> to C<sub>6</sub> aminoalkyl or R<sup>3</sup> and R<sup>4</sup> together form a C<sub>4</sub> C<sub>2</sub> to C<sub>5</sub> alkylene group; and R<sup>5</sup> is selected from the group consisting of C<sub>1</sub> to C<sub>22</sub> alkyl and C<sub>1</sub> to C<sub>22</sub> mono and dihydroxyalkyl.

2. (original) A compound of Claim 1 wherein X is selected from the group consisting of Cl, Br, I and R<sup>5</sup>SO<sub>4</sub> where R<sup>5</sup> is C<sub>1</sub> to C<sub>3</sub> alkyl; and R, R<sup>1</sup>, R<sup>2</sup>, are selected from the group consisting of a C<sub>1</sub> to C<sub>3</sub> alkyl group or two of R, R<sup>1</sup> and R<sup>2</sup> together with the nitrogen atom to which they are attached form a piperazinium or imidazolium group, and R<sup>3</sup> and R<sup>4</sup> are each individually a C<sub>1</sub> to C<sub>3</sub> alkyl group.

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3. (original) A compound of Claim 2 wherein each of R, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup> are methyl groups.
4. (original) A compound of Claim 2 wherein X is selected from the group consisting of Cl, Br and methyl sulfate.
5. (original) A compound of Claim 3 wherein X is selected from the group consisting of Cl, Br and methyl sulfate.
6. (original) A compound of Claim 5 wherein X is Br.
7. (amended) A process for the preparation of a compound of formula (1):



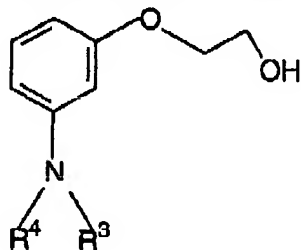
wherein X is selected from the group consisting of halogen and R<sup>5</sup>SO<sub>4</sub>; R, R<sup>1</sup>, and R<sup>2</sup> are each individually selected from the group consisting of C<sub>1</sub> to C<sub>22</sub> alkyl, C<sub>1</sub> to C<sub>22</sub> mono or dihydroxyalkyl, or two of R, R<sup>1</sup> and R<sup>2</sup> together with the nitrogen atom to which they are attached form a C<sub>3</sub> to C<sub>6</sub> saturated or unsaturated ring optionally containing in the ring one or more additional hetero atoms selected from O, S and N atoms; R<sup>3</sup> and R<sup>4</sup> are each individually selected from the group consisting of C<sub>1</sub> to C<sub>6</sub> alkyl, C<sub>1</sub> to C<sub>6</sub> hydroxyalkyl, C<sub>1</sub> to C<sub>6</sub> alkoxy, C<sub>1</sub> to C<sub>6</sub> aminoalkyl or R<sup>3</sup> and R<sup>4</sup> together form a C<sub>2</sub> to C<sub>3</sub> alkylene group; and R<sup>5</sup> is selected from the group consisting of C<sub>1</sub> to C<sub>22</sub> alkyl and C<sub>1</sub> to C<sub>22</sub> mono

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and dihydroxyalkyl of Claim 1 comprising (a) reacting an aminophenol of the formula

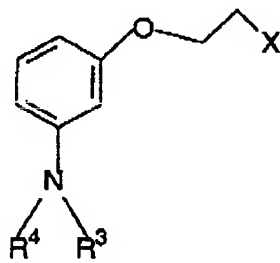
(2):

with a 2-haloethanol and potassium carbonate to produce an alcohol of formula (3):



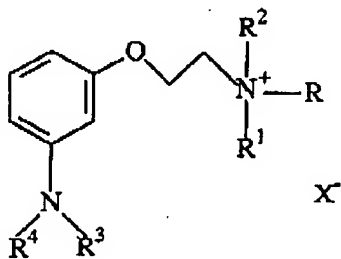
(3)

(b) converting the alcohol of formula (3) into a compound of formula (4) by reacting the alcohol compound with triphenylphosphine and a halo-succinimide



(4)

and (c) reacting the compound of formula (4) with a quaternization agent of the formula (NRR<sup>1</sup>R<sup>2</sup>) to produce a compound of formula (1)



(1)

wherein X, R, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup> and R<sup>4</sup> are as defined in Claim 1.

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8. (original) A process according to Claim 7 wherein X is selected from the group consisting of Cl, Br, I and R<sup>5</sup>SO<sub>4</sub> where R<sup>5</sup> is C<sub>1</sub> to C<sub>3</sub> alkyl; and R, R<sup>1</sup>, R<sup>2</sup>, are selected from the group consisting of a C<sub>1</sub> to C<sub>3</sub> alkyl group or two of R, R<sup>1</sup> and R<sup>2</sup> together with the nitrogen atom to which they are attached form a piperazinium or imidazolium group, and R<sup>3</sup> and R<sup>4</sup> are each individually a C<sub>1</sub> to C<sub>3</sub> alkyl group.

9. (original) A process according to Claim 7 wherein each of R, R<sup>1</sup>, R<sup>2</sup>, R<sup>3</sup>, R<sup>4</sup> and R<sup>5</sup> are methyl groups.

10. (original) A process according to Claim 7 wherein X is selected from the group consisting of Cl, Br and methyl sulfate.

11. (withdrawn)

12. (withdrawn)

13. (withdrawn)

14. (withdrawn)

15. (withdrawn)

16. (withdrawn)

17. (withdrawn)

18. (withdrawn)

19. (withdrawn)

20. (withdrawn)

21. (withdrawn)

22. (withdrawn)

23. (withdrawn)

24. (withdrawn)

#### REMARKS

Claims 1-24 remain pending in the present application. Claims 11-24 have been withdrawn from consideration. Claim 1 has been amended to correct an obvious error. Claim 7